"The FCC does not claim that their new exposure guidelines provide protection for effects to which the 4 W/kg SAR basis does not apply. . . . Both the NCRP and ANSI/IEEE standards are thermally based, and do not apply to chronic, nonthermal exposure situations." Chronic, nonthermal exposure situations are precisely the types of situations that will proliferate without control in the near future under the guidelines established August 6, 1996 by the Commission, and they are precisely the types of situations that will seriously damage the health of vulnerable populations such as the electro-sensitive. The Final Rules therefore need to be amended as requested in the Petition for Reconsideration of the Cellular Phone Taskforce, and as further requested in this Reply, to protect these populations from injury.

PO Box 4146
Prescott, AZ 86302 USA
Phone: (520) 778-4637

ELECTRICAL SENSITIVITY NETWORK

September 19, 1996

Reed E. Hundt
Chairman
Federal Communications Commission
1919 M Street NW
Washington DC 20554

Dear Mr. Hundt:

One critical oversight in the passage of the Telecommunications Act of 1996 and in subsequent establishment of applicable radiation standards was neglect of the electrically sensitive (ES) population—people who are made ill when exposed to normal levels of electromagnetic fields (EMFs). The ES must, by medical necessity, avoid EMF exposure.

As the future proliferation of telecommunications technology engulfs the entire earth in microwave broadcast transmissions, even from satellites, where will the ES go then? Under the present FCC radiation standards, the ES will be physically tortured by this flood of electromagnetic sources beyond their control. Some of the most sensitive may die from exposure to certain frequencies that are life-threatening for them, particularly those who develop heart irregularities when EMF exposed. This problem is very serious; the health and life of this disabled group is at risk.

This vital disability issue must be addressed as part of the Americans with Disabilities Act. I implore your office to plan a hearing to discuss how the problems of electrical sensitivity can be accommodated within this novel technological onslaught.

Sincerely,

Lucinda Grant
LG:ja

cc: FCC Commissioners:
Andrew C. Barrett
Rachelle B. Chong
Susan Ness
James H. Quello
National Council on Disability
President Bill Clinton
The EMR Alliance

Enclosure

Respectfully submitted,

By Arthur Firstenberg

Arthur Firstenberg, Chairman
Cellular Phone Taskforce
Post Office Box 100404
Vanderveer Station
Brooklyn, New York 11210
(718) 434-4499

October 15, 1996

I, Arthur Firstenberg, hereby certify that a true and correct copy of this Reply was sent, via U.S. mail, first class, postage paid, to:

Cathleen A. Massey
Vice President - External Affairs
AT&T Wireless Services, Inc.
1150 Connecticut Avenue, NW
Suite 400
Washington, DC 20036

Arthur Firstenberg
Arthur Firstenberg

Social Security Administration

Refer to: 055-38-9193

Office of Hearings and Appeals
200 Montague Street, Third Floor
Brooklyn, N.Y. 11201-9238
Telephone: (718) 330-7861
Date: APR 17 1998

NOTICE OF DECISION -- FULLY FAVORABLE

Arthur Firstenberg
P.O. Box 100404 Vanderveer Station
Brooklyn, NY 11210

I have made the enclosed decision in your case. Please read this notice and the decision carefully.

This Decision Is Fully Favorable To You

Another office will process the decision and send you a letter about your benefits. Your local Social Security office or another office may first ask you for more information. If you do not hear anything for 60 days, contact your local office.

The Appeals Council May Review The Decision On Its Own

The Appeals Council may decide to review my decision even though you do not ask it to do so. To do that, the Council must mail you a notice about its review within 60 days from the date shown above. Review at the Council's own motion could make the decision less favorable or unfavorable to you.

If You Disagree With The Decision

If you believe my decision is not fully favorable to you, or if you disagree with it for any reason, you may file an appeal with the Appeals Council.

How To File An Appeal

To file an appeal you or your representative must request the Appeals Council to review the decision. You must make the request in writing. You may use our Request for Review form, HA-520, or write a letter.

See Next Page

NOTE TO PROCESSING CENTER
FURTHER ACTION NECESSARY

SOCIAL SECURITY ADMINISTRATION
Office of Hearings and Appeals

DECISION

IN THE CASE OF	**CLAIM FOR**
Arthur Firstenberg (Claimant)	Period of Disability, Disability Insurance Benefits, and Supplemental Security Income
(Wage Earner)	055-38-9193 (Social Security Number)

PROCEDURAL HISTORY

The claimant, age 45, filed concurrent applications for Title II disability insurance benefits and Title XVI supplemental security income benefits on November 19, 1992. The claimant alleged in his applications that he was disabled as of November 1, 1990 because of multiple chemical sensitivity syndrome. Claimant's applications were denied initially, upon reconsideration and in an Administrative Law Judge's decision dated November 25, 1994 (Exhibit B-2).

The claimant requested a review by the Appeals Council, and in an Order of Remand dated August 18, 1995, claimant's case was remanded for further proceedings. A supplemental hearing was held on March 11, 1996, in Brooklyn, New York. The claimant who was represented by attorney Carolyn Kubitschek, appeared and testified.

ISSUES

The general issues are whether the claimant is entitled to a period of disability and disability insurance benefits under section 216(i) and 223 of the Social Security Act; and whether the claimant is disabled under section 1614(a)(3)(A) of the Act. The specific issues are whether the claimant was under a "disability" and, if so, when such disability commenced and the duration thereof.

With respect to any claim for Title II benefits, there is an additional issue pertaining to insured status. Mr. Firstenburg's earnings record indicates that he acquired sufficient quarters of coverage to remain insured through June 30, 1994. With respect to

his Title II claim for benefits, it must be demonstrated that he was under a disability on and before the date his insured status expired.

DETERMINATION

Based on a thorough consideration of all the documents identified in the record as exhibits, the claimant's testimony which I find to be credible, and the arguments presented; I find the claimant disabled within the meaning of the Social Security Act. The claimant has not engaged in substantial gainful activity since his alleged onset date of November 1, 1990. A review of the medical evidence establishes that the claimant has toxic porphyria, which is a rare disease involving enzyme deficiencies. The medical evidence does not disclose medical findings which meet or equal in severity the clinical criteria of any impairment listed in Appendix 1, Subpart P to Regulations No. 4. Claimant's impairments limit him to performing less than the full range of work at the sedentary exertional level. Moreover, the claimant's occupational base has been so markedly eroded that the claimant could not be expected to make a vocational adjustment to any work existing in significant numbers in the regional or national economy.

A review of claimant's earnings record shows that he has met the special earnings requirement of the Act on the alleged onset date, and continued to meet them through June 30, 1994.

EVALUATION

The claimant is currently 45 years old, has a college degree and started medical school but was unable to complete his training because of his illness. Since 1971 he has performed various clerical jobs both in an office and library setting. He also has worked part time as a high school teacher's aide and in a Montessori school as a typist/transcriber. All his positions have been sedentary to light in physical demands, and have ranged from unskilled to semi-skilled in complexity.

Upon remand, the Appeals Council specifically instructed that a closer review be given of claimant's earnings record for the years subsequent to his alleged disability onset date. According to claimant's earnings record, Mr. Firstenburg earned $1513.00 in 1990, obtaining 2 quarters of coverage; and he earned $403.38 in 1994 (Exhibit B-12). Averaging claimant's 1990 earnings over a 6 month period, his average monthly earnings were $252.00. At the hearing Mr. Firstenberg testified that he was forced to quit his job in November 1990 because of his illness. There is nothing in the record to dispute Mr. Firstenburg's testimony and therefore, I find his testimony credible. Since his earnings in 1990 and 1994 do not average more that $500.00 a month, these earnings do not reflect substantial gainful activity pursuant to 20 CFR

404.1574(b)(3), 20 CFR 416.974(b)(3), and Social Security Rulings 83-35 and 85-5c.

At the hearing, the claimant testified that in the spring of 1994 he made an "unsuccessful work attempt" as a library shelf reader. However, because of chest pain caused by dust, he was forced to quit. This endeavor was not substantial gainful activity, but rather an unsuccessful work attempt as described in 20 CFR 404.1574(a), 404.1575(a), 416.974(a) and 416.975(a).

With respect to claimant's physical condition, the medical evidence establishes that Mr. Firstenburg has toxic porphyria which is a disease involving enzyme deficiencies. Mr. Firstenburg' medical history includes a long list of illnesses including hepatitis at the age of 23 which continued as chronic liver pain throughout the years. Symptoms of toxic porphyria first appeared when as a medical student, Mr. Firstenburg was exposed to formaldehyde and together with poor ventilation, he developed sore throat, burning eyes and difficulty concentrating. Symptoms progressed with pain in his gallbladder area and spreading into his body and spine. Root canal treatment in 1980 caused severe systemic reaction and by 1981 he was experiencing severe memory loss. By 1982 he was having heart palpitations, pain in his chest and trouble breathing. He attempted to continue his schooling and engage in part time work throughout this time period, but by November 1990, all attempts at employment were unsuccessful because of his severe reactivity to a host of chemical compounds and everyday items.

Lab reports from the Mayo Clinic revealed the presence of abnormal enzymes in claimant's urine, confirming that coproporphyrin had been chemically induced or chemically acquired by claimant (Exhibit B-3, p.14). An occupational and environmental health specialist, Dr. Ziem, detailed the findings of a low coproporphrinogen oxidase, borderline low uroporphyrinogen synthase, borderline low ALA-D dehydratase, and low normal uroporphyrinogen decarboxylase in claimant's red blood cells. She also confirmed the presence of elevated pentacarboxl porphyrins and coproporphyrins in claimant's urine. It was Dr. Ziem's opinion, that these medical findings reflected an acquired or induced porphyria as opposed to congenital porphyria (Exhibit B-5, p.4 and Exhibit B-10).

According to Dr. Baker, an allergy specialist, there is no current treatment for claimant's disease and Mr. Firstenberg is permanently disabled because of his disabling symptoms (Exhibit B-3, p.7). Mr. Firstenberg's symptoms include skin rash, sore throat, watery eyes and runny nose, chest cough, congestion, shortness of breath, heart palpitations, nausea, abdominal pain, dizziness, tremors, paresthesias, numbness in fingers, headaches irritability, anger, inability to cope, pain throughout his body, muscle spasms, and general weakness with fever. He cannot tolerate

TV, computers, telephones, copy machines, UV light and strong sunlight (Exhibit B-3, pp. 4-5).

Claimant's treating physician since 1989, Dr. Kenneth Jaffe, has attested to such disabling symptoms as severe abdominal pain, nausea, tremor, muscle spasms, and facial rash when Mr. Firstenburg is confined indoors. When taking antibiotics, he has developed myalgia, arthralgias, dizziness, chest pain, diarrhea, difficulty breathing and abdominal pain. According to Dr. Jaffe, Mr. Firstenburg is incapable of working considering the severity and disabling nature of symptoms brought on by exposure to small amount of ambient chemicals, and residual toxins from carpets, building materials, office chemicals, and cleaning substances (Exhibit B-5, p.3).

At the hearing Mr. Firstenburg complained of burning eyes, chest pain, sore throat, fever, rash, and trouble breathing. He also stated that his thought processes were impaired when exposed to various chemicals. I find claimant's subjective complaints and alleged functional limitations to be credible in establishing disability.

Based on the foregoing, the undersigned concludes that the claimant's condition precludes him from performing even sedentary work. As such, he was unable to return to his past jobs performing various clerical duties, part time teaching and transcribing.

Once established that a claimant can no longer perform past relevant work, the Administration has the burden to show that other jobs exist in significant numbers in the national economy which the claimant can perform considering his age, education, vocational history and residual functional capacity.

The claimant is a younger individual at age 45, has a college degree and advanced training in medical school. However his work experience has been limited because of his condition, to performing various clerical duties, part time teaching and transcribing. When considering Mr. Firstenburg's residual functional capacity, he does not have any work skills which are transferable to other semi-skilled or skilled jobs.

The undersigned finds that claimant's occupational base is so markedly compromised at the sedentary level because of his impairment, that there are not a significant number of jobs in the national economy which the claimant could perform. Therefore pursuant to Section 201.00(h) of Appendix 2, Subpart P of Regulations No. 4, a finding of "disabled" is warranted.

FINDINGS

After careful consideration of the entire record, the Administrative Law Judge makes the following findings:

1. The claimant met the disability insured status requirements of the Act on November 1, 1990, the date the claimant stated he became unable to work, and continued to meet them through June 30, 1994.

2. The claimant has not engaged in substantial gainful activity since November 1, 1990.

3. The medical evidence establishes that the claimant has toxic porphyria which is a rare disease of enzyme deficiencies. However, he does not have an impairment or combination of impairments listed in, or medically equal to one listed in Appendix 1, Subpart P, Regulations No. 4.

4. Claimant's subjective complaints and alleged functional limitations are credible.

5. The claimant does not have the residual functional capacity for even sedentary work because of his impairment.

6. The claimant is unable to perform his past relevant work performing clerical duties, part time teaching or transcribing.

7. When considering claimant's residual functional capacity, the claimant does not have past work experience which is vocationally relevant (20 CFR 404.1568 and 416.968).

8. The claimant is 45, has a college degree, some medical school training and some semi-skilled relevant work experience.

9. The range of sedentary work which the claimant could perform is significantly compromised; therefore, section 201.00(h) of Appendix 2, Subpart P to Regulations No. 4 indicates that a finding of disability is appropriate.

10. The claimant has been under a "disability," as defined in the Social Security Act, since November 1, 1990 (20 CFR 404.1520(f) and 416.920(f)).

DECISION

It is the decision of the Administrative Law Judge that, based on the application filed on November 19, 1992, the claimant is entitled to a period of disability commencing on November 1, 1990 and to disability insurance benefits under sections 216(i) and 223, respectively, of the Social Security Act.

It is the further decision of the Administrative Law Judge that, based on the application filed on November 19, 1992, the claimant is disabled under 1614(a)(3)(A) of the Social Security Act, and that the claimant's disability has continued at least through the date of this decision.

The component of the Social Security Administration responsible for authorizing payments will advise the claimant regarding nondisability requirements for these payments, and if eligible, the amount and the months for which payment will be made.

NORMAN SILVERMAN
Administrative Law Judge

APR 17 1995

Date

KENNETH JAFFE, M.D.
FAMILY PRACTICE

Nov. 15, 1994

To whom it may concern:

I have been Mr. Firstenberg's physician for 6 years. Based on my observation and examinations, and based on the consultation of Dr. Grace Ziem, I feel that Mr. Mr. Firstenberg is totally and permanently disabled. His diagnosis is Multiple Chemical Sensitivity.

Mr. Firstenberg is subject to extreme and prolonged shortness of breath and chest pain and other debilitating symptoms that come without warning in the presence of a great variety of synthetic chemicals and virtually all electronic equiptment. As this is a permanent condition, Mr. Firstenberg cannot work and I do not expect him to be able to work in the future.

Sincerely,

Kenneth Jaffe, M.D.

60 EIGHTH AVENUE BROOKLYN, NEW YORK 11217 TELEPHONE (718) 638-1722

et al. 1973). Their work has serious implications, because virtually all radars, television and radio antennas, and wireless communication transmitters are aimed above the horizon where the birds fly. The microwave density increases with height, and must cause enormous suffering. There have been many anecdotal reports of birds leaving the area after a cellular tower goes into operation (Hawk 1996).

Finally, in a study of anteaters, Kholodov reports that they lost their ability to "inform" other anteaters about a food source during microwave irradiation, and furthermore that they oriented their snouts along a particular axis during the irradiation. Power levels were not stated (Inglis 1970).

15. Electrical sensitivity (ES)

Electrical sensitivity is a new name for radiation sickness, so-called because many sufferers become aware that electromagnetic fields make them ill and they experience symptoms immediately upon exposure. For many, including this author, it is like developing a new sense. Sensitivity may develop to any type of radiation including that from power lines, microwaves, X-rays, and radioactivity. Modern society may become intolerable and even ordinary sunlight may cause illness. The degree and range of sensitization depend on both the source of the injury and the susceptibility of the individual.

Baranski and Czerski (1976) write, "In certain instances syndromes of neurological disturbances (without organic lesions) and signs of neurosis, accompanied by a poorly expressed bioelectric function of the brain, are found in microwave workers following long periods of exposure. These patients may be incapacitated for further work and even normal everyday life" (p. 164).

In a controlled double blind clinical study, Rea et al. (1991) proved that electrically sensitive patients could perceive low level radiation. These researchers used 0.1 Hz to 5 MHz magnetic fields with a field strength of 70-2900 nT.

Ockerman compared 16 electrically sensitive patients with 10 healthy volunteers, and demonstrated clear differences in the red and white blood cells and urine, as well as chromosome damage, in the electrically injured group (Kauppi 1996, Sodergren 1996).

Johansson and Liu (1984) found specific changes in the skin of electrically sensitive patients: remarkably high numbers of somatostatin immunoreactive dendritic cells and histamine positive mast cells.

Huai (1981) writes that "those syndromes are not easy to recover" (p. 636).

It has been estimated from limited survey data that 2% of the population is susceptible to becoming electrically sensitive (Firstenberg 1996). This estimate comes partly from medical statistics on porphyria, which is prevalent in the electrically injured (see below). In agreement with this figure, Sadchikova (1960) reported that 11 of 525 people, or about 2%, had to cease working under conditions of microwave influence.

A higher estimate of 15% comes from a survey of 731 employees at 5 Swedish workplaces (Knave 1992). The source of radiation here is video display terminals. The 15% figure also receives support from earlier research. Sadchikova (1960) reported that radiation sickness had arisen after 3 years of work in 15% of employees, and in later work (1974) the same author writes that its frequency "did not exceed 15%." Klimkova-Deutschova (1974) found synchronized activity on the EEG in 14.3% of workers at a radio transmitting station.

It may be supposed from the above data that 15% of people exposed to microwave radiation develop overt symptoms, and that in 2% the changes become irreversible.

In controlled clinical experiments, Leitgeb (1994) found 2.3% of a random population in Graz, Austria were hypersensitive to electric currents, and Szuba and Szmigielski (1994) found 2 out of 71 healthy volunteers were hypersensitive to power line radiation, as evidenced by a marked delay in auditory and visual reaction time. Hanson (1995) found electromagnetic hypersensitivity in 12 of 519 dental patients, again a 2.3% rate. In 1981 Cabanes and Gary found 3 of 75 healthy male volunteers were able to perceive extremely low exposures to power line radiation (reviewed by Szuba and Szmigielski).

There are animal models for ES. Salford et al. (1993), testing for carcinogenicity of microwaves in rats (915 MHz, specific absorption rate of .0077-1.67 W/kg), noted that "for some modulation frequencies the average tumor size in the exposed animals largely exceeds the average size in the controls. . . This might indicate that in the few animals that, for some reason, are sensitive to the exposure, tumour growth is stimulated strongly" (p. 317).

Frey (1988) found that living in an electromagnetic field increased emotionality in test animals, and that "some animals were particularly sensitive to exposure to such fields (p. 802). He also found, in other experiments, the responses to radiofrequency radiation were bimodally distributed, again calling "attention to the importance of individual differences in sensitivities when low-intensity radiofrequency radiation is used" (p. 804).

Animal sensitization has also been demonstrated. Shandala et al. (1979), in a chronic exposure experiment on rats and rabbits (2375 MHz, 10, 50 and 500 uW/cm^2), found a substantially lower threshold of skin sensitivity to

electrical stimulation and a decrease in the "electronic irradiation threshold."

16. Diagnosing ES: a guide for doctors

The clinical studies reviewed in this booklet report the following early signs of radiation injury:

(1) change in olfactory sensitivity, which (if low) a single dose of caffeine may restore to normal

(2) increased thyroid activity and/or enlargement of the thyroid gland

(3) elevated serum protein and globulin, and lowered albumin/globulin ratio

(4) elevated histamine in the blood

(5) a weakened cutaneous vascular reaction to histamine

(6) basophilic granularity of erythrocytes

(7) decreased osmotic and acid resistance of erythrocytes

(8) mild leukopenia and thrombocytopenia

(9) immunoglobulins at the lower limit of normal

(10) bradycardia and/or hypotension

(11) lengthening of the intraauricular and intraventricular conduction of the heart on EKG, also a decrease in the amplitude of the R and T teeth, which may show up only upon physical stress

(12) subclinical activity on the EEG; the appearance of pointed synchronized waves of high amplitude and increase in slow (delta and theta) waves. These changes may appear only after activation by hyperventilation.

(13) on neurological exam: tremors of the eyelids and hands, increased tendon reflexes, decreased abdominal reflexes

(14) abnormalities in the blood sugar curve, and slight increase in the fasting blood sugar

(15) increase in cholesterol and beta-lipoprotein

(16) increased or decreased serum lactic acid

(17) acrocyanosis

Sodergren (1996) in his forthcoming study is expected to report on specific changes in the urine, as well as in the red and white blood cells.

In view of the expected metabolic hypoxia (see below), changes in the blood oxygen content and pH might also be sought.

Low values for red blood cell copper have also been seen in electrically sensitive patients, in accord with the expected redistribution of metals in the body (see below).

Kowalski and Indulski (1990) discuss psychological tests which detect early disorders of the central and peripheral nervous systems from exposure to electromagnetic radiation.

The full set of clinical signs and symptoms is listed in the section on radiation sickness, above.

17. Mechanisms of injury

Shear-strain/closed head injury. Finally the issue of "thermal" vs. "non-thermal" effects must now be addressed, however reluctantly. The argument has been made by industry representatives that all health effects from microwaves are only due to the excessive heating of the body. These are the same scientists who never do any experiments at low levels of power because they don't expect to find any effects, and they are the same scientists who dismiss all the effects they do find at high levels of power as being due to heating. Since funding for research is largely controlled by these same scientists